

Notice of Allowability

Application No.

10/824,446

Examiner

Timothy L. Rude

Applicant(s)

LEE, YUN-BOK

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 09 February 2007.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 20070209
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

David Nelms

Supervisory Patent Examiner
Technology Center 2800

tir

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 09 February 2007 has been entered. IDS filed 09 February 2007 has been considered.

Allowable Subject Matter

Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance:

As to independent claim 1, relevant prior art of record did not disclose, alone or in combination, the method of forming an in-plane switching liquid crystal display device as claimed comprising the steps of forming/arranging structure such that:

the common electrode includes a first ring-shaped common electrode pattern and a second ring-shaped common electrode pattern such that respective half portions of both the first and the second ring-shaped common electrode patterns extend from the common line in opposite directions, and wherein the pixel electrode includes a ring-

shaped pixel electrode pattern between the first and second ring-shaped common electrode patterns, and a bullseye-shaped pixel electrode pattern inside the second ring-shaped common electrode pattern such that both the ring-shaped pixel electrode pattern and the bullseye-shaped pixel electrode pattern overlap the common line.

Claimed invention:

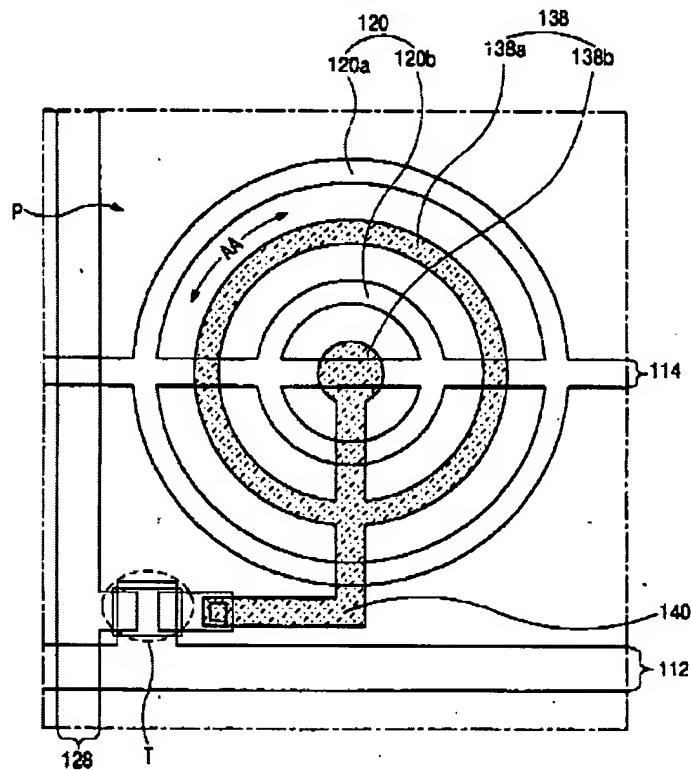
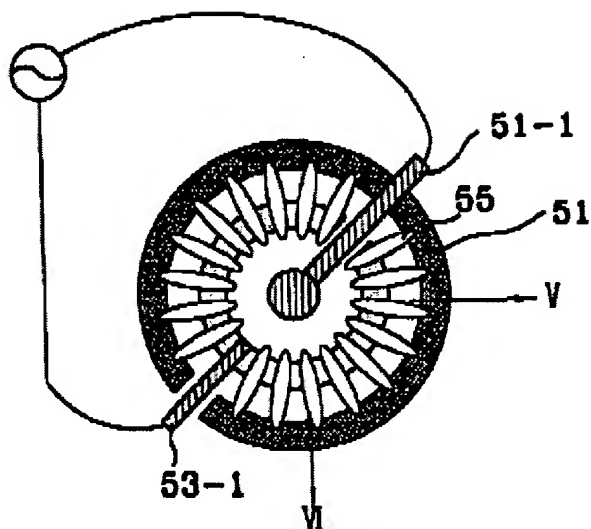


FIG. 8

The closest combination is Applicant's admitted prior art (AAPA) in view of KR 1999-0058889 (889') or Tajima, USPAT 6,191,881 or You et al (You) USPAT 6,243,154 B1.

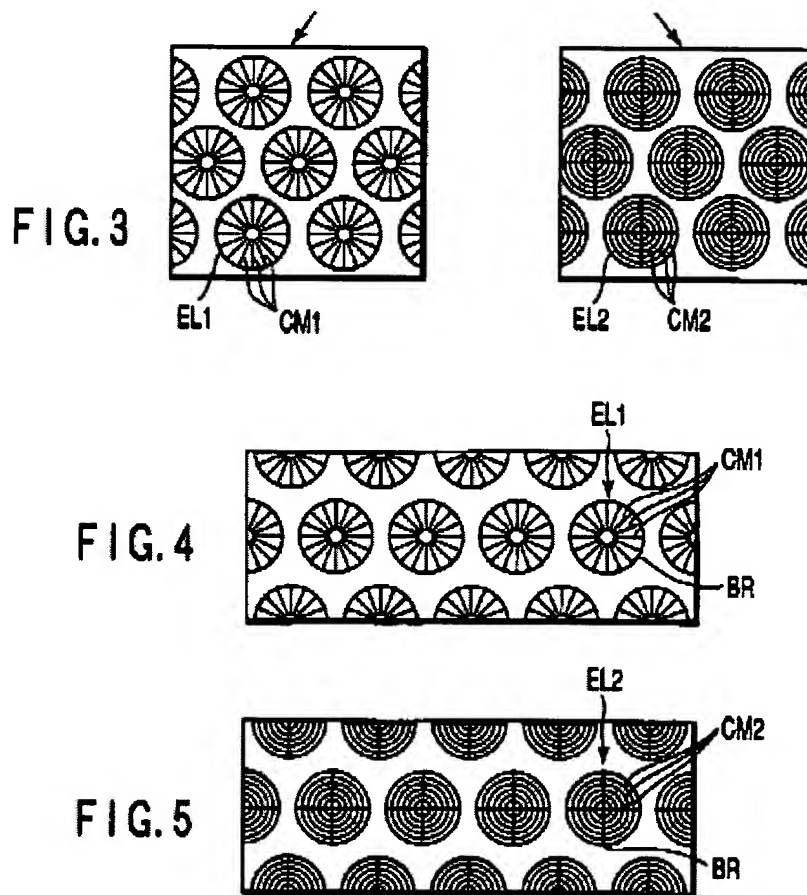
Device of You:

FIG.4



However, no reference with proper motivation to combine was found to teach the above limitations. Although the device of You is similar, the outer common electrode is "C" shaped, and it has no outer ring-shaped pixel electrode.

Newly filed IDS contains Okada et al (Okada) US PGPUB 2003/0053020 that teaches similar electrode configurations:



However Okada does not teach and a bullseye-shaped pixel electrode pattern inside a second ring-shaped common electrode pattern such that both the ring-shaped pixel electrode pattern and the bullseye-shaped pixel electrode pattern overlap the common line. These design specifics are not considered obvious in view of any properly motivated combination of the prior art.

As to independent claim 13, the structural result of the method above, relevant prior art of record did not disclose, alone or in combination, the in-plane switching liquid crystal display device as claimed comprising structure wherein:

the common electrode includes a first ring-shaped common electrode pattern and a second ring-shaped common electrode pattern such that respective half portions of both the first and the second ring-shaped common electrode patterns extend from the common line in opposite directions, and wherein the pixel electrode includes a ring-shaped pixel electrode pattern between the first and second ring-shaped common electrode patterns, and a bullseye-shaped pixel electrode pattern inside the second ring-shaped common electrode pattern such that both the ring-shaped pixel electrode pattern and the bullseye-shaped pixel electrode pattern overlap the common line.

As to claims 2-12 and 14-20, they are directly or indirectly dependent upon a claim with allowable subject matter above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



tlr

Timothy L Rude
Examiner
Art Unit 2871



David Nelms
Supervisory Patent Examiner
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